

CLAIM AMENDMENTS

1. (Currently Amended) A method for determining a low power consumption stimulation parameter set for stimulating a patient, comprising:

- (a) obtaining a stimulation parameter set;
- (b) providing stimulation to a selected region of a spinal cord in accordance with the stimulation parameter set;
- (c) obtaining a level of power consumption of the stimulation parameter set;
- (d) associating the level of power consumption with the stimulation parameter set;
- (e) repeating steps (a) through (d) for each of a plurality of different stimulation parameter sets, wherein at least some of the different stimulation parameter sets have different electrode configurations; and
- (f) determining the low power consumption stimulation parameter set based, at least in part, on the levels of power consumption respectively associated with the different stimulation parameter sets.

2. (Previously Presented) The method of Claim 1 wherein obtaining the stimulation parameter set comprises:

- selecting one of a multiple of stimulation parameter sets;
- adjusting the stimulation level of the one stimulation parameter set to find an adequate stimulation level for achieving sensory paresthesia.

3-21. (Cancelled)

22. (Previously Presented) The method of Claim 1 wherein obtaining the level of power consumption comprises computing a value of the power consumption.

23. (Previously Presented) The method of Claim 1 wherein the low power consumption stimulation parameter set is selected from the different stimulation parameter sets.

24. (Previously Presented) The method of Claim 23 further comprising displaying representations of the different stimulation parameter sets and associated levels of power consumption to a user, wherein the user selects the low power consumption stimulation parameter set from the displayed stimulation parameter set representations.

25. (Cancelled).

26. (Previously Presented) The method of Claim 1 further comprising programming the low power consumption stimulation parameter set into a spinal cord stimulation (SCS) implantable pulse generator (IPG).

27. (Currently Amended) A system for determining a low power consumption stimulation parameter set for stimulating a patient, comprising:

~~a lead carrying a plurality of electrodes configured for being placed along a spinal cord;~~

~~an electrical pulse generator mated with the lead, the electrical pulse generator configured for providing stimulation to a selected region of the spinal cord via the electrodes in accordance with a plurality of different stimulation parameter sets, wherein at least some of the different stimulation parameter sets have different electrode configurations; and~~

a programming device configured for associating levels of power consumption respectively with the different stimulation parameter sets, and determining the low power

consumption stimulation parameter set based, at least in part, on the levels of power consumption respectively associated with the different stimulation parameter sets.

28. (Previously Presented) The system of Claim 27 further comprising a spinal cord stimulation (SCS) electrode lead coupled to the electrical pulse generator.

29. (Previously Presented) The system of Claim 27 wherein the electrical pulse generator is an external trial stimulator (ETS).

30. (Previously Presented) The system of Claim 27 wherein the programming device is further configured for allowing a user to adjust the stimulation levels of stimulation parameter sets to find adequate stimulation levels achieving sensory paresthesia for the different stimulation parameter sets.

31. (Previously Presented) The system of Claim 27 wherein the programming device is further configured for computing the values of power consumption, respectively associating the computed values of power consumption with the different stimulation parameter sets, and determining the low power consumption stimulation parameter set based, at least in part, on the values of power consumption respectively associated with the different stimulation parameter sets.

32. (Previously Presented) The system of Claim 27 further comprising a user interface configured for allowing a user to select the low power consumption stimulation parameter set from the different stimulation parameter sets.

33. (Previously Presented) The system of Claim 32 wherein the user interface is further configured for displaying representations of the different stimulation parameter sets and associated levels of power consumption to a user.

34. (Currently Amended) The system of Claim 27 wherein ~~at least some of the different stimulation parameter sets have different electrode configurations~~ further comprising a lead carrying a plurality of electrodes configured for being placed along the spinal cord, wherein the electrical pulse generator mated with the lead and is configured for providing stimulation to the selected region of the spinal cord via the electrodes in accordance with the different stimulation parameter sets.

35. (Previously Presented) The system of Claim 27 wherein the programming device is configured for programming the low power consumption stimulation parameter set into a spinal cord stimulation (SCS) implantable pulse generator (IPG).

36. (Previously Presented) A method for determining a low power consumption stimulation parameter set for stimulating a patient, comprising:

- (a) obtaining a stimulation parameter set;
- (b) providing stimulation to the patient in accordance with the stimulation parameter set;
- (c) obtaining a level of power consumption of the stimulation parameter set;
- (d) associating the level of power consumption with the stimulation parameter set;
- (e) repeating steps (a) through (d) for each of a plurality of different stimulation parameter sets, wherein at least some of the different stimulation parameter sets have different electrode configurations; and
- (f) determining the low power consumption stimulation parameter set based, at least in part, on the levels of power consumption respectively associated with the different stimulation parameter sets.

37. (Previously Presented) The method of Claim 36 wherein each of the different electrode configurations comprises a location of a specific polarity of the electrodes.

38. (Previously Presented) The method of Claim 36 wherein obtaining the stimulation parameter set comprises:

selecting one of a multiple of stimulation parameter sets;

adjusting the stimulation level of the one stimulation parameter set to find an adequate stimulation level for achieving effective stimulation.

39. (Previously Presented) The method of Claim 36 wherein obtaining the level of power consumption comprises computing a value of the power consumption.

40. (Previously Presented) The method of Claim 39 wherein the low power consumption stimulation parameter set is selected from the different stimulation parameter sets.

41. (Previously Presented) The method of Claim 36 further comprising displaying representations of the different stimulation parameter sets and associated levels of power consumption to a user, wherein the user selects the low power consumption stimulation parameter set from the displayed stimulation parameter set representations.

42. (Previously Presented) The method of Claim 36 further comprising programming the low power consumption stimulation parameter set into an implantable pulse generator (IPG).

43. (Previously Presented) A system for determining a low power consumption stimulation parameter set for stimulating a patient, comprising:

an electrical pulse generator configured for providing stimulation to the patient in accordance with a plurality of different stimulation parameter sets, wherein at least some of the different stimulation parameter sets have different electrode configurations; and

a programming device configured for associating levels of power consumption respectively with the different stimulation parameter sets, and determining the low power consumption stimulation parameter set based, at least in part, on the levels of power consumption respectively associated with the different stimulation parameter sets.

44. (Previously Presented) The system of Claim 43 further comprising an electrode lead coupled to the electrical pulse generator.

45. (Previously Presented) The system of Claim 43 wherein the electrical pulse generator is an external trial stimulator (ETS).

46. (Previously Presented) The system of Claim 43 wherein the electrical pulse generator comprises a joystick configured for allowing a user to adjust the stimulation levels of stimulation parameter sets to find adequate stimulation levels achieving sensory paresthesia for the different stimulation parameter sets.

47. (Previously Presented) The system of Claim 43 wherein the programming device is further configured for computing the values of power consumption, respectively associating the computed values of power consumption with the different stimulation parameter sets, and determining the low power consumption stimulation parameter set based, at least in part, on the values of power consumption respectively associated with the different stimulation parameter sets.

48. (Previously Presented) The system of Claim 43 further comprising a user interface configured for allowing a user to select the low power consumption stimulation parameter set from the different stimulation parameter sets.

49. (Previously Presented) The system of Claim 48 wherein the user interface is further configured for displaying representations of the different stimulation parameter sets and associated levels of power consumption to a user.

50. (Previously Presented) The system of Claim 43 wherein at least some of the different stimulation parameter sets have different electrode configurations.

51. (Previously Presented) The system of Claim 43 wherein the programming device is configured for programming the low power consumption stimulation parameter set into an implantable pulse generator (IPG).